

# Karthik Sriram

LinkedIn | GitHub | US Permanent Resident (Citizenship Applied)

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## EXPERIENCE AND ACHIEVEMENTS

- Cerulion** Mountain View, CA  
*Founding Middleware Lead (Startup Partnership with CEO)* Sept 2025 - Jan 2026
  - Delivered a sub-ns zero-copy IPC and network broadcast with a production CLI in Rust and C++/Python APIs.
  - Created an AI Agent pipeline on Nvidia Isaac Sim with ROS2 hooking and visualization, tested on a Unitree Go2.
- Brembo** Sunnyvale, CA  
*Lead Embedded Software Engineer* Apr 2023 - Aug 2025
  - Achieved AI maintenance alerts with CAN/Ethernet virtual sensors on Nvidia DRIVE (RTLinux) using AWS IoT.
  - Successful STM/TI sensor fusion in C++/Python for road recognition AI braking on Nvidia DRIVE/Triton.
  - Architected ROS2 sensor publishing on Linux HPC-ECU using C++ for 5G-V2X, aligning to ISO26262/ASPICE.
- Cisco** San Jose, CA  
*Senior Embedded Software Engineer* Aug 2022 - Mar 2023
  - Designed solutions for boot-flash/install/log using Linux and IOS CLI of industrial IoT/WPAN board platforms.
- cPacket** San Jose, CA  
*Embedded Software Engineer (Contract)* Jan 2022 - Jul 2022
  - Upgraded FPGA/GPU packet capture/storage line-rate by 4x using RDMA, for Data Centers & Cloud in C++.
  - Integrated modules within Linux/RTOS based servers with protocols such as SPI/I2C using C++/Python.
- Waymo** Mountain View, CA  
*Embedded Software Specialist (Contract)* Oct 2020 - Jan 2022
  - Improved AV perception F1-scores in Python and C/C++ using RTOS/ROS2 with consideration to ISO26262.
  - Sped up camera, lidar, and audio sensor-fusion calculation performance by 33% for emergency vehicle detection.
- Codersdata** Remote, USA  
*Embedded Machine Learning Engineer* Feb - Oct 2020
  - Mapped a software stack in C++ for ASIC AI acceleration, utilizing in-memory compute of activation functions.
  - Slashed compilation and multi-threaded tensor multiplication latency by 50% and pushed throughput by 20%.
- Hewlett Packard** Chennai, India  
*Embedded Software Engineer Intern* May - Dec 2017
  - Produced state-of-the-art device drivers (I2C/I3C, UART) for display image and audio in Linux with C++.
- Hindustan Computers Ltd.** Chennai, India  
*Embedded Systems Engineer Intern* Apr - Dec 2016
  - Enhanced and JTAG tested ARM RTOS microcontroller driver (C/C++) latency for sensor applications by 2x.

## SKILLS

- Programming in Linux/RTOS:** C/C++ (CUDA), Python, Rust, MATLAB & Simulink, Git, Vector tools.

## SELECTED PROJECTS

- Wireless Door and Window Monitoring System** 2025  
*Enhanced doors/windows with a magnetic switch on ESP32 with FreeRTOS to send a Wi-Fi text when left open.*
- Wireless Embedded Musical Instruments** 2019  
*Built musical instruments with sensors on Teensyduino with SPI/I2C in C++ and Audio Processing in Python.*
- Bluetooth Crop Harvesting, IIT, Chennai** 2016  
*Presented a cost-effective tool that can cut crops using CMOS RGB color detection designed with C++/Python.*

## EDUCATION

- New York University** New York, NY  
*Master of Science in Electrical Engineering* 2018 - 2020
- SRM Institute of Technology** Chennai, India  
*Bachelor of Technology in Electronics and Communication Engineering* 2014 - 2018
  - Illinois Institute of Technology, Chicago - Semester Abroad in EE and Embedded Systems (Spring 2017)